

DEC 17 1992

UNITED STATES PATENT AND TRADEMARK OFFICE

U.S. DEPARTMENT OF JUSTICE

BEFORE THE COMMISSIONER OF PATENTS AND TRADEMARKS

In re _____)
)
)
) Decision on Petition
) under 37 CFR 10.2(c)

(petitioner) requests review of the decision of the Office of the Director of Enrollment and Discipline, entered August 17, 1992, refusing to give petitioner a passing grade on the afternoon section of the examination for registration held in April 1992.

BACKGROUND

The Director's decision was on a request, under 37 CFR § 10.7(c), for regrade of Part I of the afternoon section of the exam. Petitioner scored sixty four (64) points of the afternoon section. The Director, in his August 17, 1992 decision, agreed with some of petitioner's comments and added two points to petitioner's score thereby, raising his score to sixty six (66). A score of seventy (70) is needed to pass the exam.

Petitioner challenges the Director's decision of August 17, 1992, on several grounds. Firstly, petitioner states that the Director should not have deducted a total of four (4) points for the recitation in the claim of: non-woven glass fiber, a mandrel, welding, and crimping. Petitioner further argues that the wording of the exam question with respect to the contribution of the three inventors was misleading and as such he should not have been penalized for the inclusion in the

claim of the contribution of Spark and the failure to request that Spark be deleted as an inventor and the failure to prepare a Petition deleting Spark as an inventor.

FACTUAL REVIEW

Part I, of the afternoon section was worth fifty-eight (58) points and was directed to drafting a response to an Office Action, and presented the following relevant facts:

Three inventors, Spark, Joule and Testube invent an electrochemical cell which is an improvement on an electrocell manufactured by the Battery Corporation. The Battery Corporation's electrocell includes a metal container, a porous cathode collector, and a tubular separator. The container and the cathode collector form a first terminal for the cell. The separator is made of non-woven glass fibers. The separator must have a porosity of at least 25%. There are also two half cylindrical anode members which form the anode. A flat "U" shaped spring member is provided which when inserted and compressed mechanically provides good contact between the anode, separator and the cathode. Joule's contribution to the invention is to replace the anode members and the flat "U" shaped spring with a cylindrical spring on which a sheet of anode material has been wrapped. The spring is inserted by a mandrel into the axial cavity of the cell. Any means equivalent to the mandrel can be used to insert the spring. The essential

steps of Joule's invention include forming the compressed spring, wrapping the anode material over the spring, and inserting and releasing the spring in the axial cavity of the container.

The instructions to Part I state:

Prepare a complete response to the restriction requirement. Your claim must be the broadest method claim which includes all necessary steps to form a closed electrochemical cell containing an electrolyte solution and comprising metal container 2, separator 6, porous cathode collector formed from two half cylindrical annular members, anode 19, spring means 9 formed from a rectangular sheet of spring material, flanges 11 and 13, metal cover 37, and conductive lead 29.

Petitioner drafted a response to the Office action. The response included a claim which recited:

Claim 3. A method for forming a closed electrochemical cell containing an electrolyte solution, comprising the steps of:

(a) forming a metal container into a substantially cylindrical shape, said container being electrically conductive and having an axial cavity;

(b) a porous cathode collector placed in said metal container, said porous cathode collector formed from two half cylindrical annular members;

(c) inserting said two half cylindrical annular members into said metal container and heating said metal container exactly 2 minutes at 360° F then heating said metal container exactly 390° F for 12 minutes;

(d) inserting a tubular separator into said metal container in surface contact with said cathode collector, a bottom end of said separator folded radially inward supporting a bottom separator therein, said separator comprising non-woven glass-fibers and having a porosity of at least 25%;

(e) forming a three member lithium anode comprising a first arcuate member, a second arcuate member, and a third arcuate member interconnected in an axially aligned cylinder;

(f) wrapping said three member lithium anode in a rectangular sheet to fit axially within said metal container, said sheet having two opposing ends bent to form a pair of radially extending flanges, the total length of which is the same as the depth of a slot of a split mandrel;

(g) inserting one of said pair of flanges in the slot of said mandrel;

(h) rolling said mandrel until the second flange is reached and inserting the second flange into the slot of the mandrel and wrapped in a lithium sheet to form a spring means for biasing said anode;

(i) inserting said spring means into the axial cavity of said metal container using said split mandrel;

(j) extracting said mandrel from the axial cavity by pushing downward in a plastic push rod on said flanges to release the spring means biased on the anode radially outward against said separator;

(k) welding a conductive lead to either one of said part of flanges;

(l) welding said lead to a metal cover used to close said container;

(m) adding the electrolyte solution to said container to permeate through said anode, separator, and cathode collector;

(n) placing an insulative disc having a peripheral depending skirt disposed between said cover and an inner wall of said container; and

(o) sealing said cover by a crimping technique.

DECISION

I find no error in the Director's decision that the recitation of "non-woven glass fibers" was unnecessary. The instructions directed petitioner to draft the broadest method claim for the disclosed invention. While disclosure of the Battery Corporation electrocell stated that the separator was made of non-woven glass fibers it did not state that the separator must be made of non-woven glass fibers. The only requirement for the separator was that it must have a porosity of 25% so as to permit the electrolyte to permeate through and contact the anode. Therefore, the separator could be made of any material which satisfies the above requirement. Petitioner is wrong when he states that the porosity could only be satisfied by the non-woven glass fibers. Non-woven glass fibers do satisfy the requirement according to the disclosure but other materials may also satisfy the requirement. As petitioner was required to draft the broadest claim, he was required to draft the claim so as to include all material which would satisfy the porosity requirement.

I find no error in the decision of the Director that a "mandrel" recited in the claims was an unnecessary limitation and because the disclosure states that other means besides the mandrel could be used. Therefore, petitioner should have

drafted the claim to include the other means in order to provide the broadest claim.

I find no error in the decision of the Director that the recitation of "welding" in petitioner's claim was unnecessarily limited in that the conductive lead can be fastened to the pair of flanges by any means. Petitioner argues that the term "welding" could mean "to bring together into complete association, union, harmony or agreement" thereby presumably arguing that "welding" is a broad term. However, this is not the ordinary meaning of the term "welding" and does not coincide with any definition given in the disclosure. As such, the term "welding" should have been given its ordinary meaning by the petitioner. Even if welding is interpreted as bringing together in complete association, the term welding nonetheless denotes a specific type of fastening and is not as broad as "fastening." Absent any wording in the disclosure that the conductive lead must be connected by welding, "fastening" or some like term should have been recited to provide a broad claim.

Petitioner's point concerning whether the electrocell must be sealed and not merely closed may have merit. However, the technique used to seal the electrocell is not critical and thus the recitation of "by a crimping technique" is unduly limiting. I find no error in the deduction of one point for limiting the claim by the term "crimping."

I find no error in the decision of the Director that the directions clearly requested that the petitioner draft a claim which is directed to a method of making a closed electrocell encompassing Testube's method for forming the cathode collector and Joule's method for forming the spring biased anode. As such, the Director was correct in deducting four (4) points for the lack of direction, in petitioner's Response, to delete Spark as an inventor in the Amendment and twelve (12) points for the lack of a petition to delete Spark as an inventor.

Petitioner argues that the directions were not clear as to inventorship. The directions stated:

Claim 1 is directed to a method of making an electrochemical cell encompassing the contributions of Sam Spark and Ted Testube.

Claim 2 is directed to a method of making a closed electrochemical cell encompassing Testube's method for forming the cathode collector and Joule's method for forming the spring biased anode.


Petitioner argues that the term "encompassing" can be interpreted as including the method of claim 1 PLUS the contributions of Testube and Joule. I do not agree. In view of the above-mentioned language, and the discussion of a

restriction requirement, it is clear from the instructions that separate and distinct inventions were covered by claims 1 and 2.

Petitioner inaccurately states that the inclusion of "three member lithium" was an error which stemmed from his confusion concerning the directions regarding the inventorship of the invention. This is not totally correct. Two points were deducted for reciting "lithium" when the directions stated "Do not include the names of chemical elements, compounds or compositions." One point was deducted for limiting the claim to a "three member" anode which corresponded to Spark's contribution.

CONCLUSION

The Director's decision of August 17, 1992, is affirmed and this petition is denied.


EDWARD R. KAZENSKIE
Director of Interdisciplinary
Programs